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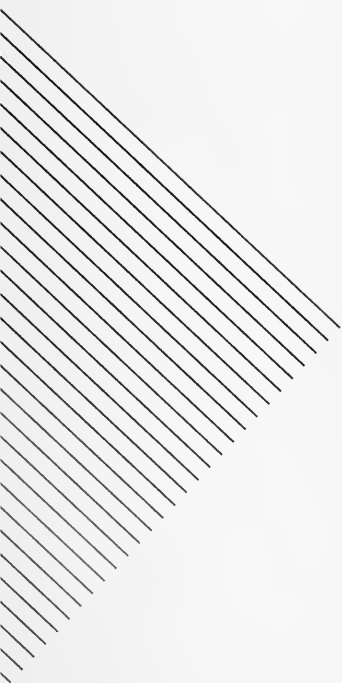
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BOSTON WATER AND SEWER COMMISSION  
ANNUAL REPORT 1991



A COMMITMENT  
TO SERVE



The entire staff at the Boston Water and Sewer Commission is dedicated to providing our customers with full value for every dollar we spend. In many areas, our 1991 expenditures decreased from the previous year.

Nevertheless, Boston residents were presented once again with substantial increases in their water and sewer bills. To compound matters, rates are projected to continue their climb in the years ahead.

Clearly, diligent cost control and efficient delivery of quality services are not enough to slow rapidly rising rates. The Massachusetts Water Resources Authority's Boston Harbor Clean-Up Project is an enormous and expensive challenge. Approximately one-third of this effort's \$7 billion price tag is being passed on to Boston ratepayers. This is the primary reason behind the Commission's dramatic rate increases.

Many Boston families and businesses are feeling the impact of higher water and sewer bills. Others will soon join them. To provide struggling ratepayers with relief, the Commission is implementing a specific ten-point program that deserves immediate attention from state and federal policymakers. Among its major elements are recommendations to:

- /// Provide state and federal funding for up to 50% of the cost of cleaning up our harbors, rivers, and estuaries.
- /// Create a Clean Water Trust Fund solely dedicated to providing rate relief.
- /// Fully fund the state's Hayes Act to provide at least \$1 billion in low-interest loans to cities and towns for wastewater construction projects.
- /// Allow all ratepayers to deduct the cost of water and sewer bills from their state and federal taxes—an option now available only to businesses and owners of rental property.
- /// Provide rate relief for low-income families through the use of a "utility scrip" to help pay for essential utilities—much like the current Food Stamp program.

**E**xecutive Director  
Robert J. Ciolek

Ratepayers can take pride in achieving significant progress toward reclaiming Boston Harbor. By repairing and constructing wastewater collection facilities, eliminating illegal sewer connections, and improving routine maintenance, the Boston Water and Sewer Commission has made important strides toward reducing Harbor pollution.

For example, the construction of interceptors with increased capacity combined with the Commission's tidegate inspection and repair program have virtually eliminated discharge of dry weather overflow into the inner Harbor.

Despite such progress, the financial impact of spiraling rate increases is likely to result in a growing ratepayer frustration. If we take meaningful steps now, however, we can perhaps avoid a policy issue guaranteed to further complicate an already difficult situation.

If you want to know more about the Commission's program to provide true rate relief, please let us know. We will be glad to share it with you—and show you how to help.

Sincerely,

  
Robert J. Ciolek  
Executive Director

"ON THE EVENING OF  
NOVEMBER 20TH, I  
DISCOVERED MY CELLAR TO  
BE FILLING WITH WATER. I  
IMMEDIATELY CALLED  
YOUR EMERGENCY  
24-HOUR NUMBER AND  
YOU HAD A TEAM ON THE  
SPOT WITHIN THE  
HALF-HOUR."

SHERIDAN GERMANN  
BOSTON RESIDENT



**D**irector of Operations  
Gerard F. Dwyer

reated to take over operation of Boston's water and sewer systems, the Commission's original mandate was to repair and upgrade thousands of miles of aging pipe and outdated equipment while bringing professionalism and financial stability to the delivery of water and sewer services.

#### **A COMPETENT AND MOTIVATED WORKFORCE**

Established as an independent business authority, the Boston Water and Sewer Commission is overseen by a three-member board which sets broad policy and monitors budgets and operations.

An executive director, appointed by the board, guides day-to-day activities within the Commission's four major departments—Executive, Operations, Engineering, and Administration and Finance.

By providing a safe and healthy work environment, and opportunities for employees to enhance their skills and knowledge, the Commission maintains a professional workforce of almost 600 full-time employees. A strong commitment to affirmative action ensures a culturally and ethnically diverse workplace.

More than 85% of the Commission's workforce are members of a bargaining unit. Employing a cooperative approach, union and management representatives work together to address matters such as improved quality control, efficient performance, and safe working conditions.

#### **MAJOR ACCOMPLISHMENTS OF 1991**

1991 was a year of continued fiscal constraint for the Commission. With reduced manpower and budget cuts in many areas, emphasis remained on improving existing programs and services. Only programs that raised revenue, controlled costs, improved service, or protected the environment received additional funding.

Along with continued repair and renewal of the city's water and sewer infrastructure and efforts to reduce pollution in Boston Harbor, there were many additional operational highlights of 1991.

**D**eputy Director  
Patricia A. Fahy and Staff



**METERING PROGRAMS:** To improve accurate registration of water consumption and to reduce costs, the Commission implemented a Meter Downsizing Program. Wherever feasible, larger water meters were replaced with smaller meters that more accurately record water flows during periods of low usage. Overall, this program resulted in the billing of 1.4 additional million gallons of water each day.

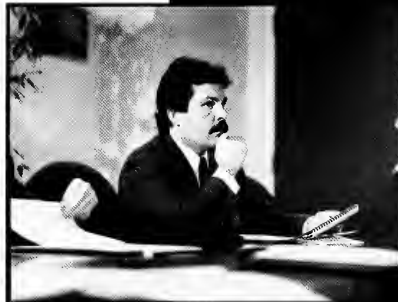
Installation of 63,057 outside meter reading devices and improved meter reading procedures increased the issuance of water bills based on actual meter readings from 64 percent to 73 percent.

**LEAK DETECTION AND REPAIR:** The Commission continually inspects its 1,182 miles of water pipes to locate and repair leaks. Leak detection efforts in 1991 reduced water loss by 4.75 million gallons per day—about 5 percent of the Commission's total daily water usage. The Commission's Leak Detection program has been nationally recognized for its contribution to water conservation.

**INCREASED COLLECTIONS:** Intensive and integrated collections activities improved the collection rate for accounts receivable from 94 percent in 1990 to 98 percent in 1991. Outstanding receivables overdue by more than 180 days were reduced by 10 percent.

**AUTOMATED FINANCIAL MANAGEMENT SYSTEM:** Installation of an in-house automated financial management system was begun in 1991. When completed in 1992, it will provide more timely and efficient financial reporting and analysis, improving the Commission's overall management information systems.

**NEW RATE STRUCTURE:** Planning was completed in 1991 for a new water and sewer rate structure designed to provide customer equity, conservation incentives, revenue stability, efficient cost allocation, and relief from rising rates for customers with limited incomes. Upon approval from the Board of Commissioners, the new rate structure is planned to be fully implemented in 1993.



**C**hief Engineer  
John P. Sullivan, Jr.

### PROGRESS ON HARBOR CLEANUP

The Boston Water and Sewer Commission takes pride in the many programs it has initiated to produce concrete results toward the 1998 goal of making Boston Harbor safe for fishing and swimming.

During the past five years, the Commission has identified and eliminated almost 300 sewer connections illegally connected to storm drains leading directly to Boston waterways. During 1992, inspection and testing of 6400 buildings along the Harbor and its 22 tributaries will identify and correct infiltration and inflow sources now contributing to Harbor pollution.

The Commission's Sewer Discharge Enforcement Program seeks elimination of large grease deposits by inspecting all restaurants and commercial kitchens annually to ensure grease traps are installed, cleaned, and properly operated.

**A**ffirmative Action  
Manager  
Joseph Delgado



With support from the MWRA and the City of Boston, the Commission has established a Waste Oil Collection Center to provide Boston residents with convenient and environmentally safe disposal of used motor oil.

The Commission continues to co-sponsor a Household Hazardous Waste Collection Day to allow home-owners to safely dispose of toxic and hazardous materials.

### CLEANER BEACHES

Although much of the city's 150 acres of beaches are still undesirable and inadequate for safe recreation, 1991 was a turning point. Coordinated environmental protection efforts undertaken by the MWRA and the Commission have significantly improved water quality at beaches in South Boston, Dorchester, and East Boston.

Also during 1991, the Commission's Executive Director was appointed to a newly established Beach Commission, a joint state and city effort to coordinate improvement of Boston's beaches.

With continued efforts to control sewage overflows, eliminate illegal sewer connections, and reduce the discharge of other pollutants into the storm drain systems, the dream of a cleaner Harbor will soon be a reality.

### CONSERVING WATER

Until March 1989, the MWRA exceeded the safe yield limit of its reservoir systems. Continued withdrawal of water at those high levels would have resulted in the very costly necessity to seek additional sources of water supply. Alternatively, reducing consumption through conservation would eliminate the requirement. Because the Commission purchases every gallon of water it supplies to Boston residents from the MWRA, water conservation is economically beneficial as well as environmentally responsible.

Programs such as leak detection and repair, infrastructure renewal and replacement, a progressive rate structure, and education of domestic and industrial customers have produced profound results.

Since the Commission was established, Boston's water consumption has been reduced by more than 30 percent. If Boston was consuming water at the same rate as in 1976—the year before the Commission was created—ratepayers would be paying an additional million of dollars each year.

This conservation effort has allowed the Quabbin & Wachusett Reservoir Systems—Boston's primary water source—to remain above safe yield levels, postponing the need to find new water supply sources.

s water and sewer services become increasingly more expensive, there is a corresponding need to ensure that ratepayers understand the Commission's current activities and plans for the future.

#### COMMUNITY OUTREACH

During 1991, the Commission's Community Outreach Program sponsored more than 140 public meetings to explain water and sewer rates, inform residents of upcoming construction projects, and discuss neighborhood concerns. Many meetings were held during evening hours to allow working people to attend.

Throughout the year, the Commission conducts office hours at 15 convenient neighborhood locations. Customers can visit to pay bills, ask questions, and apply for rate discounts offered to elderly or disabled residents.



**D**irector of Public Affairs  
Ronald A. Catena and Staff

At the central office, the customer service program has been revised to improve the staff's capacity to track customers' needs and complaints. In 1992, the Commission will implement a Quality Control Program to improve response to dissatisfied customers.

The Commission also strives to minimize disruption from repair and construction by involving neighborhoods and businesses in project planning. Work schedules are arranged to allow daily life and commerce to proceed as smoothly as possible.

As part of its regular outreach efforts, Commission staff prepare and distribute a variety of informational materials, including brochures, billing inserts, and special mailings to customers. To improve public awareness of Commission activity, the news media is kept informed of important developments.

The Commission recognizes its responsibility to make a positive contribution to Boston's neighborhoods. Its Youth Enrichment Program offers summer employment for young people, providing needed services with proper supervision. Elderly or disabled residents receive a 25 percent discount on water services—a benefit shared by 14,600 customers.

During 1992, the Commission will institute seasonal flushing of water pipes in neighborhoods with significant rusty water problems. The city's 11,000 manholes will be inspected and repaired to prevent injury to citizens. To better integrate the Commission's construction plans with neighborhood needs, planning will begin for a neighborhood-based capital improvement program.

Perhaps most importantly, the Commission is working to provide residents with relief from spiraling water and sewer rates by aggressively urging state and federal policymakers to adopt the recommendations of the Commission's comprehensive 10-point rate-relief program.

*"I, FOR ONE, GREATLY APPRECIATE THE SPECIAL EFFORT TO INTERFERE AS LITTLE AS POSSIBLE INTO OUR DAILY LIVES...THERE SEEMS TO BE A GREAT DEAL MORE CONCERN ABOUT THE NEIGHBORHOODS."*

**JOHN M. RIFO, JR.**  
BOSTON RESIDENT

The Commission is required to set water and sewer rates at levels sufficient to meet current expenses (including debt service and MWRA assessments), to maintain reasonable reserve funds, and to provide for infrastructure repair and renewal. Funds for large capital projects are raised primarily through issuance of revenue bonds.

Almost 90 percent of the Commission's annual revenue comes from water and sewer charges paid by Boston residents and businesses. The remainder is raised from special service fees and charges, investment income, and any budget surplus from the previous year.

### MASSACHUSETTS WATER RESOURCES AUTHORITY (MWRA)

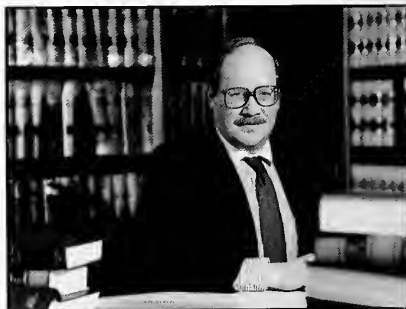
The MWRA was established to provide water and sewer services to Eastern Massachusetts. Like the Commission, the MWRA is charged with improving service and achieving financial stability. In addition, it has primary responsibility for the Boston Harbor Cleanup Project.

The staggering \$7 billion cost of the Boston Harbor Cleanup Project is the primary force behind rapidly rising water and sewer rates. This cost is passed to the 60 communities that comprise the MWRA's sewer service district.

The Commission is the MWRA's single largest customer. In 1991, the Commission paid about \$75 million to the MWRA for services that included water supply, wastewater collection and treatment, sludge processing, and repair and construction of sewage treatment facilities.

Although the Commission and the MWRA maintain a close and cooperative working relationship, the Commission regularly tests and monitors the MWRA's 29 master water meters that record Boston's water usage. The Commission also carefully reviews the MWRA's budget-setting process and ratemaking methodology to insure accuracy and fairness.

**G**eneral Counsel  
Henry C. Luthin



### PROVIDING RATE RELIEF

To provide customers with a measure of relief from climbing rates, the Commission maintains a Stabilization Fund to reduce the impact of extraordinary cost increases, such as annual MWRA water and sewer charges. In 1991, \$1 million was deposited to the Stabilization Fund which is intended to provide rate relief in future years.

A new rate structure, set for implementation by the Commission in 1993, will strive to provide further rate relief for those Boston residents least able to pay their water and sewer bills, as well as promote water conservation goals.

However, a look at future rate projections shows the need for more aggressive steps. The MWRA is forecasting rate increases on the magnitude of 15 to 40 percent over the next five years. As a result, Commission rates will also continue to rise.

True rate relief requires bold action along several fronts, as proposed by the Commission's 10-point plan outlined at the beginning of this report. In the absence of such action, public support for cleaning up Boston Harbor may well dissipate into confrontation and anger as rates continue to rise.

"DUE TO YOUR  
EFFORTS, ADVICE AND  
COUNSEL, WE HAVE  
BEEN ABLE TO REDUCE  
OUR ROXBURY  
CLUBHOUSE WATER  
CONSUMPTION  
BY 28%."

JOHN E. HURLEY  
BOYS & GIRLS  
CLUB OF BOSTON



### CONSERVATIVE FINANCIAL MANAGEMENT

Primary among the Commission's duties is its responsibility to ensure fiscal stability. The Commission's commitment to conservative financial management has regularly resulted in a modest budget surplus. This surplus is carried over into the next fiscal year to reduce rate revenue requirements.

The Commission maintains mandatory operating and debt service reserve funds at adequate levels. Among these, a Stabilization Fund helps to moderate the impact of required rate increases.

Through effective management of monies raised to pay large expenses such as the MWRA assessments and debt service payments, the Commission is able to generate investment income to help meet its annual budget. Investment income in 1991 totaled \$5.5 million.

Full and fair competition for solicitation and awarding of contracts helps to encourage careful expenditure of Commission funds. In 1992, a Vendor Evaluation Program will be instituted to ensure the best quality and price for goods and services purchased by the Commission.

Installation of an automated financial management system-scheduled for completion in 1992-will improve financial reporting and analysis capabilities and safeguard Commission assets.

### AGGRESSIVE BILLING AND COLLECTION

The Commission vigorously pursues payment for its services with a fully computerized billing and collections system that features dunning letters, telephone contacts, and a late payment charge of 14 percent per year on all bills 45 days past due.

If necessary, the Commission will terminate a customer's service and initiate legal action to recover monies owed to it. Before termination, customers who demonstrate financial hardship are allowed to arrange an extended payment plan for overdue bills.

### HIGH BOND RATINGS

The Commission issues General Revenue bonds to finance capital improvements and new equipment. Six bond issues totalling \$295.6 million are currently outstanding. In recognition of its sound fiscal management, the Commission receives consistently high bond ratings from the financial community.

For its 1991 bond issue, the Commission was awarded an "A" rating from Moody's for its "solid management" and "demonstrated trend of satisfactory financial operation." Fitch awarded the Commission an "A+" rating, noting its "sound financial position." Standard & Poor's rated the Commission an A-.

These high ratings allow the Commission to raise capital improvement funds at lower costs, producing significant budget savings to mitigate rate increases.



**E**xecutive Assistant to  
Executive Director  
James Schultz

"...SUBSTANTIAL  
IMPROVEMENTS TO  
THE COMMISSION'S  
INFRASTRUCTURE AND  
STRENGTHENED FISCAL  
MANAGEMENT..."

STANDARD & POORS

## BOARD OF COMMISSIONERS

The Commission's three-member board is appointed by the Mayor of Boston with approval by the City Council. Each board member serves a four-year term and must be a resident of Boston. Commissioners are not compensated for their service.

### COMMISSION MEMBERS

**ROXANA MARCHOSKY:** Appointed as Chair of the Board of Commissioners in 1990, Ms. Marchosky is an attorney in private practice. She received her undergraduate degree and her law degree from Boston University.

An activist in community affairs, Ms. Marchosky has served on numerous boards, including La Alianza Hispana, a multi-purpose social service agency.



**VICTORIA L. WILLIAMS:** Appointed to the Board in February of 1991, Ms. Williams is an Assistant Commissioner of the Boston Parks and Recreation Department.

Long active in public service, Ms. Williams is also a member of the Boston Parks and Recreation Commission and has served as Chair of the Board of Review for the City of Boston's Assessing Department. At the City's Youth Activities Commission, Ms. Williams worked for many years as a youth counselor.



**MARY C. NEE:** First appointed to the Board in March of 1986, Ms. Nee has served as Director of the Mayor's Office of Capital Planning since 1984. Ms. Nee has recently been appointed Executive Director of the City's Public Facilities Department.

Prior to her appointment as Director of Capital Planning, Ms. Nee served as Senior Policy and Budget Analyst for the Massachusetts Senate Committee on Ways and Means. She is a member of the Boston Industrial Development Financing Authority and serves as President of the Board of the South Boston Neighborhood House, Inc.



## INDEPENDENT AUDITORS' REPORT

### THE COMMISSIONERS BOSTON WATER AND SEWER COMMISSION:

We have audited the accompanying balance sheets of the Boston Water and Sewer Commission (the "Commission") as of December 31, 1991 and 1990 and the related statements of operations, Commission equity and cash flows for the years then ended. These financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Commission at December 31, 1991 and 1990 and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplemental Schedule of Revenues and Expenses-Rate Basis is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in our audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

A handwritten signature in dark ink, appearing to read "John P. Real". The signature is fluid and cursive, with a large initial "J" and "P".

April 3, 1992

**BALANCE SHEETS**  
DECEMBER 31, 1991 AND 1990

ASSETS	1991	1990 (Restated)
Current assets:		
Cash and cash equivalents (note 8)	\$ 746,962	480,578
Accounts receivable:		
Customers, less allowances of \$21,511,165 in 1991 and \$17,382,603 in 1990	50,699,251	51,296,234
Unbilled revenues, less allowances of \$1,773,707 in 1991 and \$1,908,716 in 1990	14,889,403	11,916,310
Construction grants receivable	5,524,961	5,887,247
Prepaid expenses	995,591	483,109
<b>Total current assets</b>	<b>72,856,168</b>	<b>70,063,478</b>
Investments (notes 4 and 8)	187,393,963	155,052,367
Property, plant and equipment, net (note 3)	305,010,137	283,041,005
Deferred charges (note 2)	24,661,745	28,735,126
Bond issue costs, net	5,620,982	4,691,125
<b>Total assets</b>	<b>\$ 595,542,995</b>	<b>541,583,101</b>
<b>LIABILITIES AND COMMISSION EQUITY</b>		
Current liabilities:		
Payable from current assets:		
Accounts payable	\$ 8,512,005	14,765,186
Other accrued liabilities	8,205,021	6,491,070
Current portion of revenue bonds	4,360,000	3,540,000
	<b>21,077,026</b>	<b>24,796,256</b>
Payable from trustee assets:		
Massachusetts Water Resources Authority assessment	4,132,209	3,175,692
Current portion of City of Boston bonds	380,000	380,000
	<b>4,512,209</b>	<b>3,555,692</b>
<b>Total current liabilities</b>	<b>25,589,235</b>	<b>28,351,948</b>
Long-term debt (note 4)	285,737,413	239,482,737
Other long-term liabilities	1,957,562	1,957,562
<b>Total liabilities</b>	<b>313,284,210</b>	<b>269,792,247</b>
Deferred credits and reserves (note 2)	163,351,811	153,830,233
Commission equity:		
Contributed capital	118,906,974	117,960,621
Commitments and contingencies (notes 10 and 11)		
<b>Total liabilities and commission equity</b>	<b>\$ 595,542,995</b>	<b>541,583,101</b>

See accompanying notes to financial statements.

**STATEMENTS OF OPERATIONS**  
FOR THE YEARS ENDED DECEMBER 31, 1991 AND 1990

	<u>1991</u>	<u>1990</u> (Restated)
Operating revenues:		
Water and sewer usage	\$ 152,959,799	136,822,659
Fire pipe	1,929,132	1,845,393
Other	2,213,499	2,489,763
<b>Total operating revenues</b>	<b><u>157,102,430</u></b>	<b><u>141,157,815</u></b>
Operating expenses:		
Operations	58,503,540	47,824,134
Maintenance	5,395,828	6,350,149
MWRA assessment	73,079,059	61,520,881
Depreciation and amortization	7,900,957	7,090,212
<b>Total operating expenses</b>	<b><u>144,879,384</u></b>	<b><u>122,785,376</u></b>
Excess operating revenues	<u>12,223,046</u>	<u>18,372,439</u>
Nonoperating revenue (expense):		
Interest income	17,397,870	16,441,629
Interest expense	(21,849,864)	(23,911,134)
Other	<u>—</u>	<u>(3,058,487)</u>
<b>Total nonoperating revenue (expense)</b>	<b><u>(4,451,994)</u></b>	<b><u>(10,527,992)</u></b>
Excess revenue before transfer requirements	7,771,052	7,844,447
Excess revenues used to fund reserves and other deferrals (note 2)	<u>(9,521,578)</u>	<u>(9,425,009)</u>
Net loss	(1,750,526)	(1,580,562)
Add: depreciation on fixed assets acquired by grants	<u>1,750,526</u>	<u>1,580,562</u>
<b>Net Income</b>	<b><u>\$ —</u></b>	<b><u>—</u></b>

See accompanying notes to financial statements.

**STATEMENTS OF COMMISSION EQUITY**  
**FOR THE YEARS ENDED DECEMBER 31, 1991 AND 1990**

	<b>CONTRIBUTED CAPITAL (Restated)</b>
Balance, January 1, 1990	\$ 117,586,749
Contributions in aid of construction	1,954,434
Depreciation of related property	<u>(1,580,562)</u>
Balance, December 31, 1990	117,960,621
Contributions in aid of construction	2,696,879
Depreciation of related property	<u>(1,750,526)</u>
<b>Balance, December 31, 1991</b>	<b><u><u>\$ 118,906,974</u></u></b>

See accompanying notes to financial statements.

**STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 1991 AND 1990**

	<u>1991</u>	<u>1990</u> (Restated)
Excess operating revenues	\$ 12,223,046	18,372,439
Adjustments to reconcile operating income to net cash:		
Excess revenues used to fund reserves and other deferrals	(9,521,578)	(9,425,009)
Depreciation and amortization	7,900,957	7,090,212
Change in assets and liabilities:		
Accounts receivable	596,983	(5,704,707)
Unbilled revenues	(2,973,093)	(1,077,822)
Construction grants receivable	362,286	7,006,079
Prepaid expenses	(512,482)	343,879
Deferred charges	3,215,755	7,239,557
Accounts payable	(6,253,181)	4,328,138
Other accrued liabilities	1,713,951	(701,137)
MWRA assessment	956,517	199,200
Deferred credits	9,521,578	9,833,145
Other long-term liabilities	—	708,314
Other	—	60,099
<b>Net cash provided by operating activities</b>	<b><u>17,230,739</u></b>	<b><u>38,272,386</u></b>
Investing activities:		
Net (purchase)/sale of investments	(32,341,596)	2,465,432
Other revenues, primarily interest income	17,397,870	16,441,629
<b>Net cash provided by (used for) investing activities</b>	<b><u>(14,943,726)</u></b>	<b><u>18,907,061</u></b>
Capital and related financing activities:		
Additions to property, plant and equipment	(28,597,444)	(31,905,179)
Proceeds from issuance of bonds	50,419,351	—
Payment on bonds, including current maturities	(3,920,000)	(3,890,000)
Payment of debt issuance costs	(1,344,876)	—
Proceeds of contributions in aid of construction	2,696,879	1,954,434
Payment of bond interest	(21,274,539)	(23,361,908)
<b>Net cash used for capital and related financing activities</b>	<b><u>(2,020,629)</u></b>	<b><u>(57,202,653)</u></b>
Net increase (decrease) in cash	266,384	(23,206)
Cash and cash equivalents at beginning of year	<u>480,578</u>	<u>503,784</u>
Cash and cash equivalents at end of year	<b><u>\$ 746,962</u></b>	<b><u>480,578</u></b>
Supplemental disclosure of cash flow information:		
Cash paid during the year for interest, net of amount capitalized	<b><u>\$ 17,845,036</u></b>	<b><u>16,313,219</u></b>

See accompanying notes to financial statements.

**1. ORGANIZATION, BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING PRINCIPLES**

The Boston Water and Sewer Commission (the "Commission") has the responsibility to provide water and wastewater services on a fair and equitable basis in the City of Boston (the "City") as required under the Boston Water and Sewer Reorganization Act of 1977 (the "Enabling Act").

Under the Enabling Act, the Commission is subject to regulation with respect to rates, accounting and other matters, where applicable, by the Board of Commissioners (the "Board"). The Board regulates the rates that the Commission can charge its customers for water and sewer usage. The rates charged to customers are based on the cash required for the Commission's operations, debt service, and reserve contributions. To comply with the external financial reporting requirements of the Board, the accompanying financial statements are presented on a basis that is consistent with generally accepted accounting principles (GAAP) for regulated utilities.

To accommodate the rate making process, the Commission follows the accounting standards set forth in Financial Accounting Standards Board Statement No. 71 ("FAS-71"), "Accounting for the Effects of Certain Types of Regulation". FAS-71 allows certain (a) revenues provided for future allowable costs to be deferred until the costs are actually incurred (deferred credits) and (b) costs incurred to be capitalized if future recovery is reasonably assured (deferred charges). Revenues and current expenses appearing in the Supplemental Schedule of Revenues and Expenses-Rate basis are presented in the same format as utilized in the Commission's budgeting and rate setting process. The revenues and expenses shown on the Statement of Operations are presented on a GAAP basis. A reconciliation between the revenues and expenses of these two operating statements is provided below:

	<u>Revenues</u>	<u>Expenses</u>
As presented in the Statement of Operations:		
Operating revenues/expenses	\$ 157,102,430	144,879,384
Other revenues/expenses	<u>17,397,870</u>	<u>21,849,864</u>
<b>Total</b>	<b>174,500,300</b>	<b>166,729,248</b>
Reclassifications and deferrals:		
Contribution to reserves	—	3,604,000
Provision for working capital	—	2,247,128
Bad debt expense	(24,130,055)	(24,130,055)
Excess depreciation over bond payments	—	(4,525,957)
Interest expense	—	(4,407,771)
Interest income	(6,434,933)	—
Capital expenditures	—	9,713,747
Excess revenue used to offset current rates	7,084,679	—
Other deferrals	<u>6,650</u>	<u>(100,669)</u>
<b>As presented in the Supplemental Schedule</b>	<b><u>\$ 151,026,641</u></b>	<b><u>149,129,671</u></b>

The Enabling Act requires that any net surplus, as defined by the rate setting process, be either returned to the City or applied to offset water and sewer rates for the following year. The Commission has applied \$1,896,970 and \$7,084,679 for the years ended December 31, 1991 and 1990, respectively, to offset rates in the respective subsequent years.

**(a) Revenue Billings**

Water and sewerage fees are billed to users of the systems on a quarterly cycle basis. Revenues are accrued for periods between the termination of billings for the various cycles and the end of the year.

**(b) Investments**

Investments, consisting of direct and unconditionally guaranteed short-term obligations of the U.S. Government, repurchase agreements and money market units secured by government securities, are stated at amortized cost plus accrued interest.

**(c) Property, Plant and Equipment**

Property, plant and equipment is stated at cost. Depreciation is provided on the straight-line method based upon the estimated useful lives of the various classes of assets. Maintenance and repairs are charged to expense as incurred. Major renewals or betterments are capitalized and depreciated over their estimated useful lives.

The Commission capitalizes interest costs during construction of assets for its own use. Interest totalling approximately \$1,094,000 was capitalized in 1990. No interest was capitalized in 1991.

**(d) Depreciation**

The ranges of estimated useful lives used in computing depreciation are as follows:

	<u>Years</u>
Water:	
Works	60 to 100
Meters and hydrants	10 to 40
Sewerage:	
Works	40 to 75
Pumping station	35
Other	3 to 15

**(e) Contributed Capital**

Contributions from governmental agencies, individuals and the City of Boston, received in aid of specific construction projects that are not refundable, are recorded as contributed capital. Accordingly, depreciation of the related property is charged directly to contributed capital and appears as an addition to net income in the accompanying statements of operations.

**(f) Cash Equivalents**

The Commission considers all highly liquid, short-term cash investments with a maturity of less than three months to be cash equivalents for purposes of the statement of cash flows.

**(g) Bond Issue Costs**

Expenses related to the issuance of bonds are amortized on a weighted-average basis over the life of the bonds, which approximates the effective interest method.



## (h) Restatement and Reclassifications

The 1990 financial statements have been restated to reflect the write off of interest and compensated absences totalling \$6.9 million. These amounts were previously reported as deferred debits. Also, certain amounts in the 1990 financial statements have been reclassified to conform to the 1991 presentation.

## 2. DEFERRED CHARGES AND CREDITS

As discussed in note 1, the application of FAS-71 results in certain revenues and expenses being removed from the Statement of Operations and reflected in the balance sheet as deferred debits or credits. The revenues and expenses that have been removed from the Statement of Operations and added to the balance sheets as deferred credits appear in the line "Excess revenues used to fund required reserves and other deferrals" on the Statement of Operations. The components of these amounts are:

	1991	1990
Contributions to reserves	\$ 3,604,000	5,193,000
Interest and compensated absences	—	(6,902,912)
Provision for working capital	2,247,128	1,579,199
Principal payments on long-term debt	3,375,000	3,890,000
Interest paid from escrow funds, net	(4,407,771)	(3,342,727)
Capital expenditures	9,713,747	7,967,383
Depreciation	(4,877,786)	(4,197,907)
Interest income on project and escrow funds	6,434,933	6,364,985
Rate surplus used	(7,084,679)	(6,432,956)
Rate surplus deferred	1,896,970	7,084,679
Other	(1,379,964)	(1,777,735)
	<u>\$ 9,521,578</u>	<u>9,452,009</u>

The components of the deferred charges included in the accompanying balance sheet are as follows:

	1991	1990
Accrued pension expense	\$ 16,321,068	16,536,823
Accrued interest expense	—	3,000,000
Debt extinguishment expense	8,340,677	9,198,303
	<u>\$ 24,661,745</u>	<u>28,735,126</u>

The activity in and components of the deferred credits included in the accompanying balance sheet are as follows:

	December 31, 1990	Increase (Decrease)	December 31, 1991
Debt service	\$ 16,806,000	3,604,000	20,410,000
Capital improvements	72,439,685	8,858,159	81,297,844
Working capital	55,259,869	2,247,128	57,506,997
Self insurance	2,240,000	—	2,240,000
Reduction of future rates	7,084,679	(5,187,709)	1,896,970
	<u>\$153,830,233</u>	<u>9,521,578</u>	<u>163,351,811</u>

## 3. PROPERTY, PLANT AND EQUIPMENT

The cost of water and sewerage plant and equipment in service and related accumulated depreciation at December 31, 1991 and 1990 are as follows:

	1991	1990
Water:		
Works	\$ 106,342,402	104,536,336
Meters and hydrants	13,624,243	12,473,263
<b>Total water</b>	<u>119,966,645</u>	<u>117,009,599</u>
Sewerage:		
Works	169,209,169	166,446,479
Pumping station	6,798,216	6,798,216
<b>Total sewerage</b>	<u>176,007,385</u>	<u>173,244,695</u>
Other	17,349,403	14,139,983
<b>Total</b>	<u>313,323,433</u>	<u>304,394,277</u>
Less accumulated depreciation	47,593,316	41,137,026
<b>Total</b>	<u>265,730,117</u>	<u>263,257,251</u>
Construction in progress	39,280,020	19,783,754
<b>Total</b>	<u>\$ 305,010,137</u>	<u>283,041,005</u>

## 4. LONG TERM DEBT

At the time of its creation, the Commission assumed general obligation certificates of indebtedness of the City (the "City bonds") pertaining to the water and sewer systems. Payments of principal and interest are made directly to the City in accordance with the original maturity and interest schedules.

A summary of these City bonds as of December 31, 1991 and 1990 follows:

	1991	1990
City Bonds, bearing interest at rates ranging from 5.1% to 9.5% with maturity dates ranging through December 1999	\$ 1,330,000	1,710,000
Less current installments	380,000	380,000
<b>Total general obligation debt of the City, net of current installments</b>	<u>\$ 950,000</u>	<u>1,330,000</u>

A summary of revenue bonds of the Commission follows:

	<u>1991</u>	<u>1990</u>
1984 Series A, bearing interest at rates ranging from 7.0% to 10.0%, with maturity dates ranging from January 1, 1992 to January 1, 2001	\$ 20,065,000	21,105,000
1985 Series A, bearing a variable interest rate (3.9% and 5.85% at December 31, 1991 and 1990, respectively), maturing in two equal amounts on November 1, 2014 and 2015 and requiring annual sinking fund contributions through 2014	48,625,000	49,170,000
1986 Series A, bearing interest at rates ranging from 6.0% to 7.88%, with maturity dates ranging from November 1, 1992 to 2015	79,405,000	80,605,000
1988 Series A, bearing interest at rates ranging from 6.0% to 7.4%, with maturity dates ranging from November 1, 1992 to 2008	56,535,000	57,175,000
1989 Series A, bearing interest at rates ranging from 6.2% to 7.1%, with maturity dates ranging from November 1, 1992 to 2019	39,775,000	39,890,000
1991 Series A, bearing interest at rates ranging from 5.0% to 7.0% with maturity dates ranging from November 1, 1992 to 2021	52,365,000	—
	<u>296,770,000</u>	<u>247,945,000</u>
Less:		
Current installments	4,360,000	3,540,000
<b>Total long-term revenue bonds</b>	<u>292,410,000</u>	<u>244,405,000</u>
Less:		
Unamortized issue discount	7,622,587	6,252,263
<b>Net long-term revenue bonds</b>	<u>\$ 284,787,413</u>	<u>238,152,737</u>

Annual sinking fund requirements and debt principal maturities for all future years are as follows:

	<u>City Bonds</u>	<u>Revenue Bonds</u>	<u>Total</u>
1992	\$ 380,000	4,360,000	4,740,000
1993	270,000	4,760,000	5,030,000
1994	270,000	5,185,000	5,455,000
1995	195,000	5,785,000	5,980,000
1996	65,000	8,015,000	8,080,000
Thereafter	150,000	268,665,000	268,815,000
	<u>\$ 1,330,000</u>	<u>296,770,000</u>	<u>298,100,000</u>

The 1984 Series A Bonds were issued in order to refund a series of 1980 System Revenue Bonds. Under the Refunding Trust Agreement, the 1980 Bondholders have no right, title, interest or liens in any other funds, real or personal property or assets of the Commission other than the amounts held under the Refunding Trust Agreement and pledged for their benefit thereunder.

The 1985 Series A Bonds were issued to provide funds for projects under the Commission's ongoing capital improvement programs and other capital and operating needs. The Commission maintains a letter of credit to guarantee the principal and interest payments on these variable interest rate bonds in the event that the Commission is unable to make such payments.

In August 1986, the Commission issued 1986 Series A General Revenue Bonds (1986 Bonds). This issue was structured as a rolling cross-over refunding and new money issue. The 1986 bonds provide funds for the Commission's ongoing capital improvement program and other capital and operating needs. In addition, a portion of the proceeds of the 1986 bonds were deposited to the 1986 Series A Escrow Account to provide for the principal payments of the 1985 Series A Bonds and the interest payments of the 1986 bonds as they come due. Thus, the Commission is allowed to pay the low short-term interest rates provided under the 1985 bonds and has secured a guaranteed redemption for the 1985 bonds.

In December 1988, the Commission issued 1988 Series A Bonds to provide for the defeasance of a portion of the Commission's General Revenue Bonds 1984 Series A to provide supplemental funding for the Operating Reserve Fund and to pay costs of issuance. Under the 1988 Refunding Trust Agreement, the Commission deposited sufficient funds with the 1984 Bond Trustee to pay when due the principal and interest on the refunded bonds until the first call date, January 1, 1995. As a result, the refunded bonds are no longer outstanding under the Commission's Resolution.

In December 1989, the Commission issued the 1989 Series A Bonds to provide funds for projects undertaken as part of the Commission's ongoing capital improvement program.

In May 1991, the Commission issued 1991 Series A Bonds to provide funds for projects, to provide funds for the Senior Debt Reserve Fund and to pay the cost of issuance of the 1991 Series A Bonds. The Commission maintains an insurance policy with Financial Guaranty Insurance Company to guarantee payment of principal and interest on the Series A Bonds maturing November 1, 1997 through November 1, 2021.

In the aggregate \$105,420,000 remains outstanding at December 31, 1991 on the portions of the 1980 and 1984 issues that were defeased "in-substance".

The "Resolution Establishing Issue of Revenue Bonds" adopted by the Commission on December 6, 1984 places certain restrictions on the Commission's operations. It requires that rates, charges and fees be set at a level sufficient to meet a net revenue test on an annual basis and requires that all revenues, as defined, be deposited in a Revenue Fund maintained by a fiscal agent. Amounts held in the Revenue Fund are to be disbursed to and withdrawn from other funds provided for in the Resolution. The Resolution provides that all excess cash be held in the Revenue Fund until the last business day of the fiscal year. At that time, if certain covenants are met, the Commission has the option to remove any excess cash from the Revenue Fund and place such cash in a fund not restricted by the Resolution.

The Commission has options for early redemption of revenue bonds starting in 1995 at prices ranging from 100% to 103% of face value. In addition, in compliance with the Resolution, the Commission has established both trustee and nontrustee funds with investments, principally short-term securities, which are restricted for payment of specified liabilities, capital projects or other costs of operations. The components of the trustee and nontrustee investments at December 31, 1991 and 1990 are as follows:

	1991	1990
<b>Trusteed:</b>		
U.S. Treasury notes	\$ 56,529,126	31,848,636
U.S. Treasury bills	1,232,158	—
Other government obligations	45,491,022	7,427,618
Money market and cash investments	15,806,819	11,336,912
Commercial paper	4,023,488	58,601,842
Repurchase agreements	43,218,208	4,613,678
	<u>166,300,821</u>	<u>113,828,686</u>
<b>Nontrusteed:</b>		
U.S. Treasury notes	3,686,493	9,921,220
Money market and cash investments	17,406,649	16,964,007
Commercial paper	—	687,747
Repurchase agreements	—	13,650,707
	<u>21,093,142</u>	<u>41,223,681</u>
	<u>\$ 187,393,963</u>	<u>155,052,367</u>

## 5. MASSACHUSETTS WATER RESOURCES AUTHORITY

The Massachusetts Water Resources Authority (the "Authority") provides all the Commission's water supply and sewer treatment requirements and assesses the Commission for a portion of its actual operating and capital expenses. The assessment is based on the Authority's fiscal year (July 1 to June 30) and payments are due to the Authority in four installments in September, November, March and May. Interest is not charged on the outstanding balance. The amounts included in the operating statement for the MWRA assessments for 1991 and 1990 are as follows:

	1991	1990
Assessments allocated on:		
Water usage	\$ 24,801,726	22,880,297
Wastewater usage	<u>48,277,333</u>	<u>38,640,584</u>
Total	<u>\$ 73,079,059</u>	<u>61,520,881</u>

During 1991 and 1990, over 76% and 73%, respectively of water received from the Authority was billable to customers. Since its inception, the Commission has increased the percentage of billable water from 52% in 1977 to over 76% in 1991 and is continuing to take steps to improve the amount of billable water, including replacement of old and defective meters and continuation of a comprehensive leak detection and repair program.

## 6. TRANSACTIONS WITH THE CITY OF BOSTON

The Commission's ongoing program to meter City facilities has resulted in billings to nine City departments based on actual consumption of \$2,569,000 and \$2,618,000 in 1991 and 1990, respectively. The remaining City departments were billed \$287,000 based on estimated consumption during 1990. No estimated billings were required for 1991.

The City provides services to the Commission, including paving and facilities rental. Operating costs billed to the Commission by the City were \$912,000 and \$2,433,000 during 1991 and 1990, respectively. Capital costs billed by the City were \$1,156,000 and \$4,672,000 during 1991 and 1990, respectively.

## 7. RETIREMENT BENEFITS

The Commission provides retirement benefits to substantially all of its employees through a pension trust fund (the "Trust Fund") or the State-Boston Retirement System (the "Boston System"). A dispute concerning the Commission's past and future obligations to all Commission employees covered by the Boston System was settled in 1986, resulting in a payment of \$19,100,000 to the Boston System. This payment was funded primarily through 1985 and 1986 bond proceeds and is recorded as a deferred charge that will be recovered through future rates.

As part of the settlement with the Boston System, the Commission annually reimburses the City for the Commission's share of pension benefits paid to Commission employees. The Commission's share is based upon the proportion of each employee's total years of creditable service that were spent with the Commission. Employees become 100% vested after 10 years of creditable service as defined by Chapter 32 of the Massachusetts General Laws.

The Commission's covered payroll was approximately \$18,240,000 and \$16,924,000 in 1991 and 1990, respectively. Total payroll for all Commission employees was approximately \$20,246,000 and \$18,629,000 in 1991 and 1990, respectively. In compliance with Statement No. 5 of the Governmental Accounting Standards Board, as of January 1, 1992, the Commission updated its actuarial valuation originally performed as of January 1, 1991. The valuation and subsequent update were based on 122 retired and inactive employees and 593 active employees. Employee contributions are defined under Massachusetts General Laws, Chapter 32. Total employee contributions were approximately \$1,314,000 and \$1,200,000 or 6.5% and 6.4% of covered payroll in 1991 and 1990, respectively.

As required by the Commission's Enabling Act, employee pension contributions are transferred to the Boston System and are either returned to employees upon termination or, for vested employees, are used to defray a portion of the total retirement benefit. The Commission's policy is to make additional contributions to the Trust Fund based upon the actuarially determined cost of future benefits, net of employee contributions.

Trust Fund assets at December 31, 1991 and 1990 are as follows:

	1991	1990
Assets (at fair market value):		
Common stock	\$ 13,068,322	9,740,375
Corporate bonds and notes	1,630	—
Cash	405,833	609,045
Other	8,444,920	6,724,988
<b>Total</b>	<b>\$ 21,920,705</b>	<b>17,074,408</b>

Net assets in excess of the pension benefit obligation applicable to the Commission's employees participating in the Pension Trust Fund Plan, as of January 1 are determined as follows:

	1992	1991
<b>Net assets available for benefits</b>	<b>\$ 21,920,705</b>	<b>17,074,408</b>
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits	3,558,000	3,446,000
Current employees:		
Employer-financed vested	8,523,000	7,118,000
Employer-financed nonvested	3,211,000	2,814,000
<b>Total pension benefit obligation</b>	<b>15,292,000</b>	<b>13,378,000</b>
<b>Net assets in excess of pension benefit obligation</b>	<b>\$ 6,628,705</b>	<b>3,696,408</b>

The amount shown as the pension benefit obligation is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases estimated to be payable in the future as a result of employees' service to date. The measure is intended to help users assess the funding status of the system on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due and make comparisons among systems. The measure is independent of the actuarial funding method used to determine contributions to the pension trust fund.

The January 1, 1992 pension benefit obligation was computed through an actuarial update using the information contained in the January 1, 1991 actuarial valuation. The significant assumptions used in the calculation of the pension benefit obligations as of January 1, 1992 and 1991 include an 8% annually compounded rate of return on present and future assets and projected salary increases of 6% per year, compounded annually.

The Commission's funding policy has been to provide for quarterly employer contributions to the Trust Fund based upon an actuarially determined rate using the aggregate actuarial cost method. The Commission's contributions totalled approximately \$810,000 and \$950,000 in 1991 and 1990, respectively, or 5.1% and 6.7% of the covered payroll. Historical information on the Commission's Pension Trust Fund Plan is not available. Historical and other financial information on the Boston System can be found in the Boston System's financial statements.

## 8. DEPOSITS AND INVESTMENTS

The Boston Water and Sewer Commission's General Revenue Bond Resolution, adopted December 6, 1984, as amended, places certain limitations on the nature of deposits and investments available to the Commission. Demand deposits and term deposits without collateralization can only be made with financial institutions meeting certain criteria. Certificates of deposit must be fully collateralized and issued by FDIC insured banks. Investments can also be made in securities issued by or unconditionally guaranteed by the U.S. Government or its Agencies; public agencies, municipalities or state obligations carrying the highest bond rating; commercial paper rates A-1; P-1, A-Rated money market funds; fully collateralized investment contracts and certain futures contracts.

In addition, the Commission's Pension Trust Fund has additional investment powers, most notably the ability to invest in stocks, corporate bonds and other instruments.

**(a) Deposits**

A summary of the amount of the Commission's deposits that are (Category 1) fully insured or collateralized with securities held by the Commission or its agent in the Commission's name, (Category 2) those deposits that are collateralized with securities held by the pledging financial institution's trust department or agent in the Commission's name and (Category 3) those deposits that are not collateralized as of December 31, 1991 follows:

	Bank Balances			Total	Carrying Amount
	Category			Bank	
	1	2	3	Balance	
Cash	\$ 700,000	—	1,625,338	2,325,338	(194,951)
Money market	—	—	8,623,237	8,623,237	10,590,895
<b>Total</b>	<b>\$ 700,000</b>	<b>—</b>	<b>10,248,575</b>	<b>10,948,575</b>	<b>10,395,944</b>

**(b) Investments**

The Commission's investments are categorized according to the level of risk assumed by the Commission. Category 1 includes investments that are insured, registered or held by the Commission's trustee in the Commission's name. Category 2 includes uninsured and unregistered investments held by the counterparty's trust department or agent in the Commission's name. Category 3 includes uninsured or unregistered investments held by the counterparty, its trust department or agent but not in the Commission's name:

	Carrying Amount			Carrying Amount	Estimated Market Value
	Category				
	1	2	3		
U.S. Government obligations	\$ 54,770,630	—	—	54,770,630	55,372,000
U.S. Government Agency obligations	45,491,022	—	—	45,491,022	46,966,000
Repurchase agreements	—	43,218,205	—	43,218,205	41,050,000
Money market	100,000	—	23,441,136	23,541,136	23,541,000
Other investments	—	10,723,988	—	10,723,988	10,699,000
Total	\$100,361,652	53,942,193	23,441,136	177,744,981	177,628,000

**9. LEASE COMMITMENTS**

The Commission has entered into leases for building space under various leases expiring through 1992. These leases have been accounted for as operating leases. The Commission also leases office equipment under various leases expiring through 1995, that have also been accounted for as operating leases. Such leases are expected to be renewed as they expire in the normal course of business.

Minimum lease commitments under all leases with terms in excess of one year at December 31, 1991 are as follows:

1992	\$ 153,392
1993	49,482
1994	13,631
1995	752
	<b>\$ 217,257</b>

Rent expense under operating leases amounted to \$1,624,000 and \$1,677,000 in 1991 and 1990, respectively.

**10. COMMITMENTS**

A major capital improvement program is currently in progress. As part of this program, the Commission has entered into a number of contracts for the design and construction of its facilities. Commitments under these contracts aggregate approximately \$35 million as of December 31, 1991. Capital improvements, primarily related to water and wastewater system projects with an emphasis on the clean-up of the Boston harbor area, are expected to aggregate approximately \$135 million in 1992 and 1993. Of this amount, approximately \$98 million represents extension and improvement projects and \$37 million represents renewal and replacement projects. The extension and improvement projects will be 32% funded by federal and state grants. The remaining amounts will be funded from the Commission's bond proceeds and operating revenues.

**11. CONTINGENCIES**

The Commission is involved in ordinary and routine litigation and other matters related to its operations and the establishment of rates. Management believes that the resolution of these matters will not materially affect the financial position of the Commission.

The Commission has received federal and state grants for specific purposes that are subject to review and audit by the grantor agencies. Such audits could lead to requests for reimbursement to the grantor agency for expenditures disallowed under terms of the grant. The Commission believes such disallowances, if any, will not be significant.

The Commission is involved as a defendant in litigation regarding the pollution of Boston harbor. Management believes that, except for increases in future MWRA assessments related to the litigation, the Commission's extensive capital improvement program (see note 10) addresses probable actions that the Commission may be required to undertake in connection with this litigation.

**SUPPLEMENTAL SCHEDULE OF REVENUES AND EXPENSES - RATE BASIS**  
**FOR THE YEARS ENDED DECEMBER 31, 1991 AND 1990**

	<u>1991</u>	<u>1990</u>
Revenues:		
<b>Water revenue</b>	<b>\$ 64,675,711</b>	<b>59,959,305</b>
<b>Sewer revenue</b>	<b>88,284,088</b>	<b>76,863,354</b>
Less:		
Adjustments	16,659,338	9,016,613
Discounts	514,325	759,587
Bad debt	6,956,392	6,485,394
<b>Total</b>	<b>24,130,055</b>	<b>16,261,594</b>
Net billed charges	128,829,744	120,561,065
Prior year surplus	7,084,678	6,432,956
Miscellaneous revenues:		
Late charge revenue	5,053,775	3,810,106
Investment income	5,909,162	6,266,538
Fire pipe revenue	1,929,133	1,845,393
Other income	2,220,149	2,389,515
<b>Total revenues</b>	<b>151,026,641</b>	<b>141,305,573</b>
Direct operating expenses:		
Salaries and wages	20,087,209	19,221,885
Overtime wages	1,076,734	1,179,909
Fringe benefits	4,273,411	2,981,876
Supplies and materials	1,784,061	1,428,448
Repairs and maintenance	5,395,827	6,350,149
Utilities	397,508	396,610
Professional services	1,805,933	2,067,094
Space and equipment rentals	1,618,507	1,681,940
Other services	825,290	681,434
Insurance	668,213	651,124
Damage claims	441,597	354,637
Inventory	357,762	342,672
Capital outlay	1,301,056	818,808
<b>Total direct operating expenses</b>	<b>40,033,108</b>	<b>38,156,586</b>
Nonoperating expenses:		
MWRA assessment	73,079,059	61,520,881
Capital improvements	8,412,691	7,148,575
Principal payments	3,375,000	3,890,000
Interest expense	14,442,093	13,732,654
Deposits to reserve funds	3,604,000	5,193,000
Working capital provision	2,247,128	1,579,199
Deferred interest expense	3,000,000	3,000,000
Solid fill disposal	936,592	—
<b>Total nonoperating expenses</b>	<b>109,096,563</b>	<b>96,064,309</b>
<b>Total current expenses</b>	<b>149,129,671</b>	<b>134,220,895</b>
Current year rate surplus	<b>\$ 1,896,970</b>	<b>7,084,678</b>

This supplemental schedule presents the Commission's revenues and expenses on the basis that is presented in the Commission's budget and rate-setting documents.





BOSTON WATER AND SEWER COMMISSION  
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